(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



- 1 1881 1 1881 1 1881 1 1881 1 1881 1 1881 1 1881 1 1881 1 1881 1 1881 1 1881 1 1881 1 1881 1 1881 1 1881 1 1

(43) International Publication Date 13 October 2005 (13.10.2005)

PCT

(10) International Publication Number WO 2005/094909 A1

(51) International Patent Classification⁷: A61L 9/00, G01N 21/00, B32B 27/04, G01N 30/96, 27/04, 27/00, A61L 2/00, G01N 21/00

(21) International Application Number:

PCT/US2005/009653

(22) International Filing Date: 23 March 2005 (23.03.2005)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/555,462

23 March 2004 (23.03.2004) US

(71) Applicant (for all designated States except US): STERIS INC. [US/US]; 43425 Business Park Drive, Temecula, CA 92590 (US).

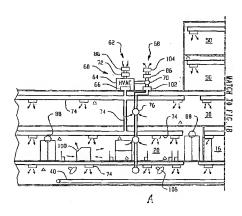
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): MCVEY, Iain, F.

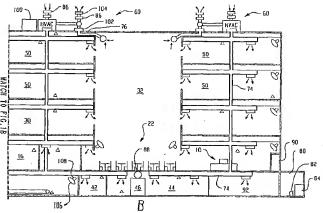
[GB/US]; 1563 Lauderdale Avenue, Lakewood, OH 44107 (US). WIGET, Paul, A. [US/US]; 9662 Oxford Glen Drive, Mentor, OH 44060 (US). CENTANNI, Michael, A. [US/US]; 7335 Beresford Avenue, Parma, OH 44130 (US). SCHWARTZ, Lewis, I. [US/US]; 2699 Wicklow Road, Shaker Heights, OH 44120 (US).

- (74) Agents: KOCOVSKY, Thomas, E., Jr. et al.; Fay, Sharpe, Fagan, Minnich & McKee, LLP, 1100 Superior Avenue, Seventh Floor, Cleveland, OH 44114-2518 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ,

[Continued on next page]

(54) Title: INTEGRATED CONTROL AND DISTRIBUTION SYSTEM FOR THE DECONTAMINATION OF LARGE VOLUME, CONVOLUTED CONFIGURATION SPACES





(57) Abstract: A large convoluted space, such as a multistory concourse of an airport is isolated and a chemical or biological agent in the concourse is deactivated. A plurality of deactivation gas sources (100) introduce a deactivation gas at multiple points along the concourse. Fans (66, 106) circulate the deactivation gas, sensors (110) sense concentrations of the deactivation gas at numerous points around the concourse and exhaust fans (66) exhaust air, spent deactivation gas, and some deactivation gas. A control processor (84) controls the generators, the circulation fans, and the exhaust fans in accordance with the gas concentrations sensed by the sensors to increase and decrease deactivation gas concentration in selected subregions of the concourse by increasing or decreasing generation, increasing or decreasing exhausting, or altering flow patterns among subregions.

WO 2005/094909 A1



TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,

SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.